

**Goat Anti-NOVA1 Antibody**  
Peptide-affinity purified goat antibody  
Catalog # AF1740a

**Specification**

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**Goat Anti-NOVA1 Antibody - Product Information**

Application	IHC, WB
Primary Accession	<a href="#">P51513</a>
Other Accession	<a href="#">NP_006482</a> , <a href="#">4857</a>
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	51727

**Goat Anti-NOVA1 Antibody - Additional Information**

**Gene ID** 4857

**Other Names**

RNA-binding protein Nova-1, Neuro-oncological ventral antigen 1, Onconeural ventral antigen 1, Paraneoplastic Ri antigen, Ventral neuron-specific protein 1, NOVA1

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-NOVA1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-NOVA1 Antibody - Protein Information**

**Name** NOVA1 ([HGNC:7886](#))

**Function**

Functions to regulate alternative splicing in neurons by binding pre-mRNA in a sequence-specific manner to activate exon inclusion or exclusion. It binds specifically to the sequences 5'-YCAAY- 3' and regulates splicing in only a subset of regulated exons (PubMed:<a href="http://www.uniprot.org/citations/10811881" target="\_blank">10811881</a>). Binding to an exonic 5'-YCAAY-3' cluster changes the protein complexes assembled on pre-mRNA, blocking U1 snRNP binding and exon inclusion, whereas binding to an intronic 5'-YCAAY-3' cluster enhances

spliceosome assembly and exon inclusion. Binding to 5'-YCAAY-3' clusters results in a local and asymmetric action to regulate spliceosome assembly and alternative splicing in neurons. Binding to an exonic 5'-YCAAY-3' cluster changed the protein complexes assembled on pre-mRNA, blocking U1 snRNP (small nuclear ribonucleoprotein) binding and exon inclusion, whereas binding to an intronic 5'-YCAAY-3' cluster enhanced spliceosome assembly and exon inclusion. With NOVA1, they perform unique biological functions in different brain areas and cell types. Autoregulates its own expression by acting as a splicing repressor. Acts to activate the inclusion of exon E3A in the glycine receptor alpha-2 chain and of exon E9 in gamma-aminobutyric-acid receptor gamma-2 subunit via a distal downstream UCAU-rich intronic splicing enhancer. Acts to regulate a novel glycine receptor alpha-2 chain splice variant (alpha-2N) in developing spinal cord (By similarity).

#### Cellular Location

Nucleus {ECO:0000250|UniProtKB:Q9JKN6}.

#### Tissue Location

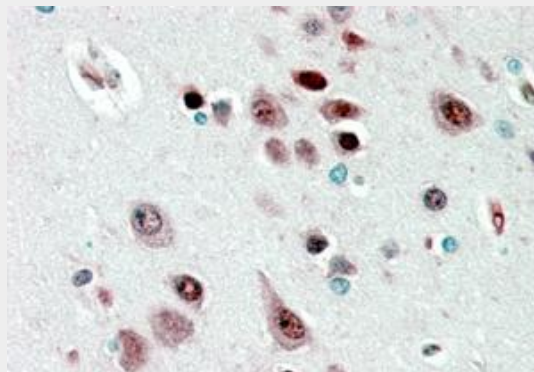
Expressed in cerebellum, brain stem, hippocampus, and frontal cortex.

### Goat Anti-NOVA1 Antibody - Protocols

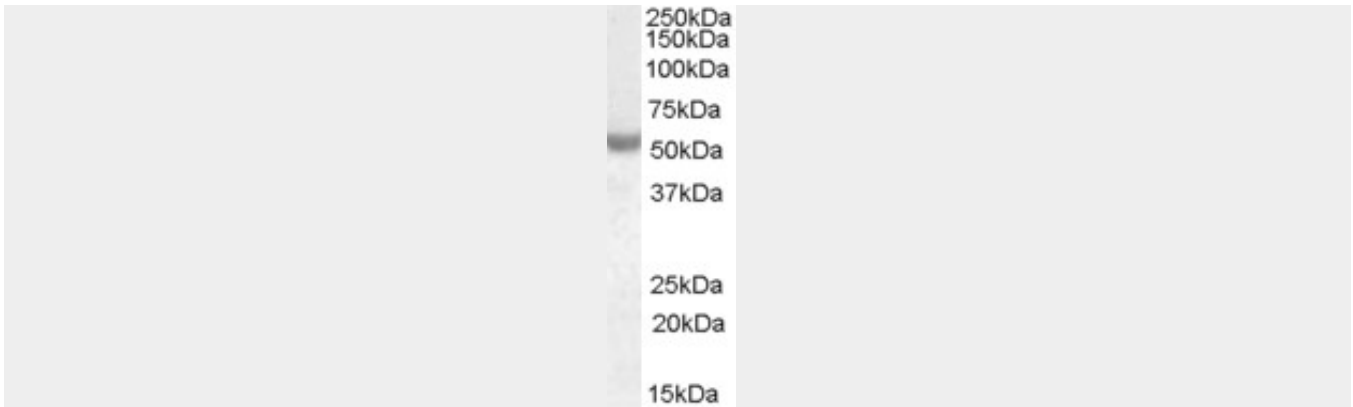
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

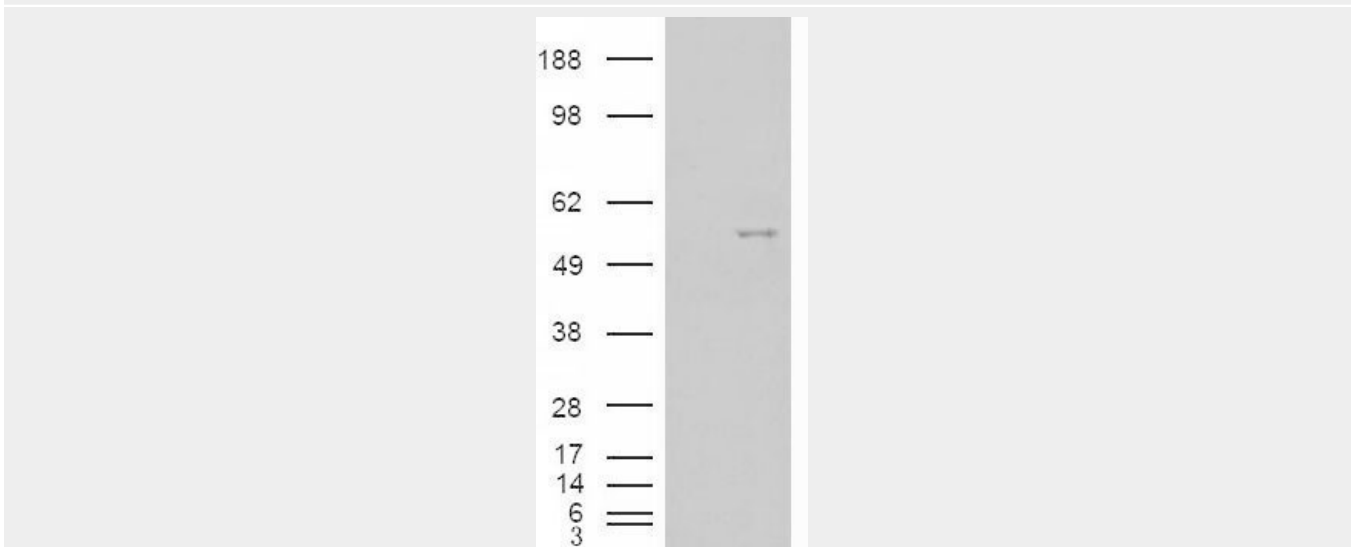
### Goat Anti-NOVA1 Antibody - Images



AF1740a (2.5 µg/ml) staining of paraffin embedded Human Cerebral Cortex. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



AF1740a (0.01 µg/ml) staining of Human Breast Cancer lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



HEK293 overexpressing NOVA1 (RC210407) and probed with AF1740a (mock transfection in first lane), tested by Origene.

### Goat Anti-NOVA1 Antibody - Background

This gene encodes a neuron-specific RNA-binding protein, a member of the Nova family of paraneoplastic disease antigens, that is recognized and inhibited by paraneoplastic antibodies. These antibodies are found in the sera of patients with paraneoplastic opsoclonus-ataxia, breast cancer, and small cell lung cancer. Alternatively spliced transcripts encoding distinct isoforms have been described.

### Goat Anti-NOVA1 Antibody - References

Genome-wide association study of antipsychotic-induced parkinsonism severity among schizophrenia patients. Alkelai A, et al. *Psychopharmacology (Berl)*, 2009 Oct. PMID 19680635.  
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Conduct disorder and ADHD: evaluation of conduct problems as a categorical and quantitative trait in the international multicentre ADHD genetics study. Anney RJ, et al. *Am J Med Genet B Neuropsychiatr Genet*, 2008 Dec 5. PMID 18951430.  
Paraneoplastic antibody during follow-up of a patient with anti-Ri-associated paraneoplastic neurological syndrome. Stich O, et al. *Acta Neurol Scand*, 2009 May. PMID 18822086.  
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proteins ELAV. Ratti A, et al. J Biol Chem, 2008 Mar 21. PMID 18218628.